

The opinion in support of the decision being entered today was **not** written for publication and is **not** precedent of the Board.

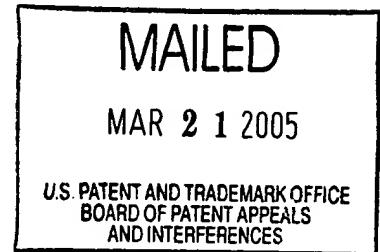
Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte

JOHN R. JACOBSON and
RUSSELL P. HAZARD



Appeal No. 2004-1912
Application No. 09/808,584

HEARD: January 26, 2005

Before GARRIS, WARREN, and PAWLIKOWSKI, Administrative Patent Judges.

PAWLIKOWSKI, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-35 and 57.

A copy of claims 1, 4, 6, 8, and 10 are representative of the subject matter on appeal and are set forth below:

1. An apparatus for coating an article, said apparatus comprising:
 - an applicator;
 - a conveyor for sequentially transporting a plurality of articles to said applicator; and

a metering bar positioned against said applicator to meter a predetermined amount of coating composition to said applicator for transfer to an article transported to said applicator by said conveyor.

4. The apparatus of claim 1 wherein the end of said metering bar positioned against said applicator has a radius of at least about 2.5 mm.

6. The apparatus of claim 1, wherein said metering bar and said applicator are arranged to enable said metering bar to exert a force of at least about 35 g/cm width against said applicator.

8. The apparatus of claim 1, wherein said conveyor and said applicator are configured to enable said applicator to apply a coating to the edge face of a roll of tape disposed between said conveyor and said applicator.

10. The apparatus of claim 1, wherein said applicator comprises an endless belt.

The examiner relies upon the following references as evidence of patentability:

Knain	2,868,162	Jan. 13, 1959
Rebentisch	3,818,860	Jun. 25, 1974
Schrauwers et al. (Schrauwers)	5,476,545	Dec. 19, 1995
Schäfer	5,804,256	Sep. 08, 1998
Schäfer	5,863,620	Jan. 26, 1999
Shiraishi et al. (Shiraishi) (European Patent Application)	0 648 715	Apr. 19, 1995

Kirk-Othmer, "Radiation Curing", Encyclopedia of Chemical Technology, 4th Edition, Vol. 20, pp. 832-834 (1996)

Claims 1-5 and 9-16, 18-35 and 57 stand rejected under 35 U.S.C. § 102 as being anticipated by Schäfer '256.

Claims 1, 3, 9, 11-13, 16, 18-20, 25-27, 32-35, and 57 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Schäfer '620.

Claims 1, 3, 9-16, and 18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Knain.

Claims 1 and 9, stand rejected under 35 U.S.C. § 102(b) as being anticipated by Schrauwers.¹

Claims 1, 9 and 57 stand rejected under 35 U.C.S. § 102(b) as being anticipated by Shiraishi.

Claims 1, 10, and 57 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Rebentisch.

Claims 6-8 and 17 stand rejected under 35 U.S.C. § 103 as being obvious over Schäfer '256.

Claim 33 stands rejected under 35 U.S.C. § 103 as being unpatentable over Schäfer '256 in view of Kirk-Othmer.

Claims 2 and 4-7 stand rejected under 35 U.S.C. § 103 as being obvious over Schäfer '620.

Claims 6 and 7 stand rejected under 35 U.S.C. § 103 as being obvious over Knain.

Claims 2, 3, 6, and 7 stand rejected under 35 U.S.C. § as being obvious over Schrauwers.

Claim 8 stands rejected under 35 U.S.C. § 103 as being over over Shiraishi.

¹ We observe that this rejection does not include a rejection of claim 12. On page 2 of the final Office action (Paper No. 9), claim 12 was included in this rejection. On page 2 of the brief, appellants list claim 12 as one of the rejected claims in this rejection. We assume the examiner has thus withdrawn the rejection of claim 12 in the rejection because claim 12 is not rejected in the answer.

OPINION

In an effort to streamline our analysis herein, we focus on the crux of appellants' claimed subject matter, as made evident by the arguments presented by appellants in the brief and reply brief. That is, we focus on whether the applied references anticipate the claimed limitation "a metering bar positioned against" the applicator "to meter a predetermined amount of coating composition to said applicator for transfer to an article transported to the said applicator."

I. Claim Interpretation

We note that it is well settled that application claims, in proceedings before the USPTO, are to be given their broadest reasonable interpretation consistent with the specification. In re Sneed, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983).

There are several locations throughout the specification in connection with the aforementioned claimed subject matter: On page 1, beginning at line 28, the specification indicates that the invention features an apparatus for coating an article, the apparatus comprising, *inter alia*, a metering bar positioned against the applicator, to meter a predetermined amount of coating composition to the applicator for transfer to an article transported to the applicator by the conveyor. On page 2 of the specification, beginning at line 4, the specification indicates that the end of the metering bar positioned against the roller, has a radius of at least about 2.5 mm. On page 6 of appellants' specification, beginning at line 29, the specification indicates that the metering bar 22 is positioned such that an edge 33 of the metering bar 26 bears on the surface of the applicator

roller 18. The metering bar 22 and applicator roller 18 combine to define a trough 42, which receives the liquid coating composition 24. At the top of page 7 of the specification, the specification discloses that the "force with which the metering bar presses against the applicator roller 18, and the angle at which the arcuate end portion 31 of the metering bar 22 contacts the applicator roller 18 control the amount of coating composition 24 that is carried by the applicator roller 18 as it rotates past the metering bar 22 in a counter clockwise direction."

Finally, on page 8 of the specification, beginning at line 10, the specification discloses that the metering bar 22 is a bar that "is capable of controlling the amount of coating composition applied to the applicator roller 18 such that each revolution of the applicator roller carries substantially the same amount of coating composition for transfer to the article to be coated. A number of suitable metering bar constructions are available including a doctor blade, a doctor blade that includes a gap . . . and a doctor blade that includes a rotatable rod as shown, e.g., in Fig. 11. The portion of the metering bar positioned against the applicator can have a smoother patterned surface."

In another embodiment, the metering bar is as shown in Figure 11. Figure 11 shows metering bar 86 that includes a rotatable rod 88 disposed in the applicator-contacting end 90 of the metering bar 86. The rod 88 is capable of rotating about its longitudinal axis L. The rod 88 can be rotated at predetermined speeds, at predetermined intervals and in predetermined directions, to provide various functions such as refreshing the arcuate surface available for contact with the

applicator and cleansing the nip between the rod and the applicator. See page 10, line 27 through page 11, line 4, of the specification and Figure 11.

In view of the above, we interpret the claimed phrase "a metering bar position against said applicator" as requiring that a portion of metering bar bears on the surface of the applicator roller. The metering bar can include a rotatable rod disposed in the applicator-contacting end of the metering bar as depicted in Figure 11.

II. The Anticipation Rejections

As an initial matter, we note that the burden is on the examiner to set forth a prima facie case of obviousness or anticipation. See In re Alton, 76 F.3d 1168, 1175, 37 USPQ2d 1578, 1583 (Fed. Cir. 1996); In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

We also note that when an examiner relies upon a theory of inherency, "the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (BPAI 1990).

We now consider each of the applied references regarding whether the applied art anticipates the claim limitation of "a metering bar positioned against" the applicator "to meter a predetermined amount of coating composition to said applicator for transfer to an article transported to the said applicator."

Schäfer '256

The examiner relies upon the inherency theory stating that "a gap to some degree would exist between metering roll and respective applicator roll to enable the coating material to pass therethrough". Answer, page 12. The examiner does not provide a factual basis to support his inherency theory other than referring to Figure 1, and the recited phrase "a pair of metering rolls each juxtaposed with a respective one said applicator rolls operatively connected with the reservoir means."

On page 3 of the brief, appellants argue that Schäfer '256 does not teach a metering bar; rather, Schäfer teaches a metering roll. We find that Schäfer teaches applicator rollers 1,2 (see FIG. 1). Schäfer discloses, "metering rolls 3,4 form a gap with the smooth rubberized applicator rolls (FIG.1)". See column 4, lines 15-17. However, FIG. 1 does not show an item 3. Item 4 is shown near item 6. Item 6 is described as "a heatable roller wiper 6 (FIG. 1) on the applicator rollers 1,2 which are cleaned by a blade wiper". See column 4, lines 38-41. Hence, we agree with appellants that Schäfer does not teach a metering bar. Rather, Schäfer discloses a wiper blade 6. Hence, Schäfer does not anticipate "a metering bar positioned against said applicator".

In view of the above, we therefore reverse the anticipation rejection involving Schäfer '256.

Schäfer '620

In this rejection, the examiner finds that metering bar 2 is positioned against the applicator, and refers to FIG. 1. Answer, page 5. Schäfer '620 does teach metering rolls 2 and

4, shown in FIG. 1. Appellants' claimed metering bar is interpreted to include rolls (see appellants' embodiment shown in FIG. 11, as stated, supra, on pages 5-6 of this decision). Hence, the issue becomes, whether metering rolls 2 and 4 are positioned against the applicator.

Appellants state that in col. 4, at lines 49-52, Schäfer '620 indicates that the metering rolls are so arranged that a narrow gap remains between the metering roll 2,4 in the respective applicator roll.

On page 13 of the answer, the examiner responds, and states that FIG. 1 shows that each metering roll is positioned against the applicator roll.

We note that a claim must be read in conjunction with the specification and drawings. In re Zahn, 617 F.2d 261, 267, 204 USPQ 988, 995 (CCPA 1980). The specification of Schäfer '620 describes the figure as showing how the "metering rolls are so arranged that a narrow gap remains between the metering roll 2,4 and the respective applicator roll". See column 4, lines 48-52. This is not the same as a metering bar "positioned against" an applicator.

In view of the above, we therefore reverse the 35 U.S.C. § 102(b) rejection of claims 1, 3, 9, 11-13, 16, 18-20, 25-27, 32-35 and 57 as being anticipated Schäfer '620.

Knain

On page 6 of the answer, the examiner states that Knain teaches an apparatus for coating articles comprising an applicator, a conveyor, and a metering bar 47 opposed to or against the applicator, and refers to Fig. 1 of Knain.

Appellants argue that applicator 47 is used to remove excess paint from the belt, and therefore not capable of metering a predetermined amount of coating composition. Brief, page 6. In response, the examiner states that appellants' claimed invention does not include method steps and therefore does not require an order of application. The examiner states that Knain merely has to provide a metering bar to meter or maintain the desired amount of material for application to the article. Answer, page 13.

We agree with appellants' findings regarding applicator 47. We additionally note that in the final Office action of Paper 9, on page 5, the examiner relied upon item 31 of Knain (rather than item 47) for teaching a metering bar that can be used to meter an amount of coating material to the applicator 11 of Knain.² However, roll 31 receives fresh paint from the paint pickup roll 30 and deposits fresh paint on belt 11 after picking up unapplied paint from belt 11 (see col. 2, lines 19-31; col 3., line 61 to column 4, line 2, and FIGS. 1 and 2). No disclosure indicates that film thickness roll 31 has the capability "to meter a predetermined amount of coating composition to said applicator for transfer to an article transported to the said applicator."

Hence, Knain's teachings regarding either applicator 47 or roll 31 do not anticipate appellants' claim 1.

In view of the above, we reverse the anticipation rejection involving Knain.

²We note that roll 31 is in the form of a roll, and that appellants' metering bar, as discussed supra, according to the specification, includes a metering bar in the form of a roll. See, again, FIG. 11 of appellants' specification in this regard.

Schrauwers

The examiner's position for this rejection is set forth on pages 6 and 7 of the answer. The examiner states that the metering bar or doctor 16, as depicted in Fig. 1 of Schrauwers, is positioned against the roller applicator 15.

Appellants' response for this rejection is set forth on pages 7-9 of the brief. Appellants argue that element 16 of Schrauwers does not meter a predetermined amount of coating composition to the applicator for transfer to an article as required by claim 1.

In response, on page 14 of the answer, the examiner states that metering bar 16 of Schrauwers prevents the combination of an excess of applied coating material and freshly applied coating material from building up, to provide a different thickness of coating to each subsequently fed article. In this way, the examiner concludes that metering bar 16 facilitates uniform metering of the coating material in a predetermined amount to be applied to the applicator and then conveyed to the article. Answer, page 14.

We find that Schrauwers discloses, in col. 2, beginning at line 40, that "[t]he cleanliness of the external surface of the transfer cylinder 5 [see Fig. 1] is guaranteed by a doctor 16 which is kept pressed against the external cylindrical surface" of transfer cylinder 5, and alternates parallel to the rotation axis of the cylinder. In this way, the external surface of the transfer cylinder 5 is freed of any residual glaze before coming into contact with the external cylindrical surface of the matrix-bearing cylinder 4 and receiving fresh glaze. We do not agree with the examiner that this is the same as a metering bar used "to meter a predetermined amount of coating composition to

said applicator for transfer to an article transported to the said applicator."

Moreover, although the examiner asserts that Schrauwers' metering bar 16 prevents the combination of excess of applied coating material and freshly coating material from building up to provide a different thickness of coating to each subsequently fed article, we cannot find such disclosure in Schrauwers.

In view of the above, we reverse the rejection of claims 1 and 9 as being anticipated by Schrauwers.

Shiraishi

The examiner's position for this rejection is set forth on page 7 of the answer. The examiner states that Shiraishi discloses a metering bar 7 positioned against the applicator to meter a predetermined amount of coating, and refers to Fig. 1 of Shiraishi.

Appellants' response is forth on pages 9-10 of the brief. Appellants state that Shiraishi teaches that bending blade 7 exerts a force against rubber roll 5, which causes the rubber to flex to an arcuate shape, that is complementary to the bending blade, until one axial end of the rubber roll is in direct contact with the sheet glass 1, and the opposite axial end of the rubber roll is spaced upwardly from the sheet of glass. Appellants state that the bending blade 7 of Shiraishi thus impacts the way in which the composition, that is already on the applicator roller, is coated onto the sheet of glass by the applicator. Appellants state that bending blade 7 does not meter a predetermined amount of coating composition to the applicator for transfer to an article transported to the

application by the conveyor as required by claim 1. Brief, page 9.

In response, the examiner argues that Shiraishi teaches a blade or metering bar positioned against the applicator 5. The examiner states the control of the amount of coating material applied to the applicator, and then to the article, results from the metering bar or blade 7 removing left-over applied coating. The examiner states that the blade or metering bar 7 prevents the combination of excess of applied coating material and freshly applied coating material from building up, to provide different thickness of coating to each subsequently fed article. Answer, pages 14-15.

We cannot find in Shiraishi disclosure that indicates that the metering bar 7 prevents the combination of an excess of applied coating material and freshly applied coating material from building up, to provide a different thickness of coating to each subsequently fed article. Item 7 is an bending blade held against the rubber roll 5 for bending the rubber roll 5 arcuately, to create a progressively varying gap between sheet 1 of glass and the rubber roll 5, and a conveyor 8 disposed underneath the rubber roll for feeding the sheet glass 1 in the direction as indicated by arrow A in Fig. 1, across the rubber roll 5.

As shown in Fig. 2, the rubber roll 5 is flexed to an arcuate shape complementary to the bending blade 7 until one axial end 5a thereof is held in direct contact with the sheet 1 of glass remotely from a longitudinally edge 1a thereof. See col. 3, lines 18-23. The gap between sheet 1 of glass and the rubber roll 5 is therefore progressively smaller or tapered in

the transverse direction of the sheet 1 of glass, from the end 5b of the rubber roll 5 or the rubber roll 5.

The rubber roll 5 is supplied with paste 2 at a constant rate by the doctor blade 6. This doctor blade is positioned adjacent to the rubber roll 5. See col. 2, lines 54-55 and col. 3, lines 15-16.

Paste 2 is coated within the gap on the sheet 1 of glass, by the rubber roll 5, and has its thickness progressively smaller in the transverse direction of the sheet 1 of glass from the end 5b of the rubber roll 5 or the edge 1a of the sheet 1 of glass toward the end 5a of the rubber roll 5. See Fig. 2. See also col. 3, lines 26-36.

Hence, there is no indication that the metering bar 7 prevents the combination of an excess of applied coating material and freshly applied coating material from building up, to provide a different thickness to each subsequently fed article, as asserted by the examiner. As such, the examiner's assertion that Shiraishi anticipates the claimed limitation regarding a metering bar positioned against an applicator "to meter a predetermined amount of coating composition to said applicator for transfer to an article transported to the said applicator", is not supported by the disclosure of Shiraishi.

With regard to the aforementioned doctor blade 6, this blade is positioned "adjacent to the rubber roll for supplying the paste at a constant rate to the rubber roll". See column 2, lines 1-3. As such, the doctor blade is not "positioned against" the rubber roll, as required by appellants' claims.

We therefore reverse this rejection.

Rebentisch

The examiner's position for this rejection is set forth on page 7 the answer. The examiner states that Rebentisch teaches an apparatus having a metering bar 6 against the applicator to meter a predetermined amount of coating and refers to Fig. 1 of Rebentisch.

Appellants respond to this rejection on page 10 of the brief. Appellants argue that Rebentisch discloses that the doctor blade 6 reduces the adhesive to a desired thickness. Appellants argue that Rebentisch does not disclose that the doctor blade 6 is positioned against the applicator 3. Appellants argue that in fact Figs. 1 and 2 of Rebentisch depict a gap between the doctor blade 6 and the applicator 3.

In response thereto, on page 15 of the answer, the examiner recognizes that Rebentisch does not explicitly state that the doctor blade is positioned against the applicator. However, the examiner argues that the doctor blade is against the applicator so as to reduce, and thereby meter, a predetermined amount of coating, and provide a desired thickness of the coating, on the conveyed article.

We cannot find in Rebentisch (as recognized by appellants), any explicit disclosure stating that the doctor blade is positioned against the applicator. As pointed out by appellants, a gap is depicted in Fig. 1 and in Fig. 2.

In view of the fact that Rebentisch lacks disclosure indicating that the metering bar is necessarily positioned against the applicator, we reverse this rejection.

III. The 35 U.S.C. § 103 rejections

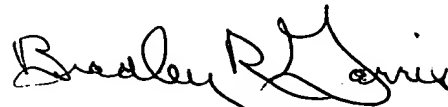
Rather than discuss each rejection and the respective reference(s) applied in a particular 35 U.S.C. § 103 rejection, we simply refer to our discussion made above in connection with the same references utilized in the anticipation rejections. That is, for the same reasons that the references of Schäfer '256, Schäfer '620, Knain, Schrauwers, and Shiraishi each fail with regard to establishing a prima facie case of anticipation, we determine that these references also fail with regard to a prima facie case of obviousness.

In view of the above, each of the 35 U.S.C. § 103 rejections is reversed.

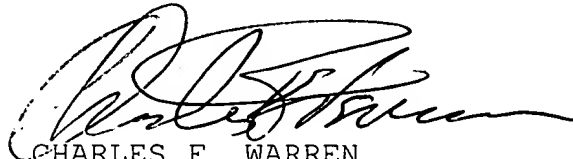
IV. Conclusion

Each of the rejections is **reversed**.

REVERSED



BRADLEY R. GARRIS
Administrative Patent Judge



CHARLES F. WARREN
Administrative Patent Judge



BEVERLY A. PAWLIKOWSKI
Administrative Patent Judge

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BAP/sld

Appeal No. 2004-1912
Application No. 09/808,584

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